

FIG. 1

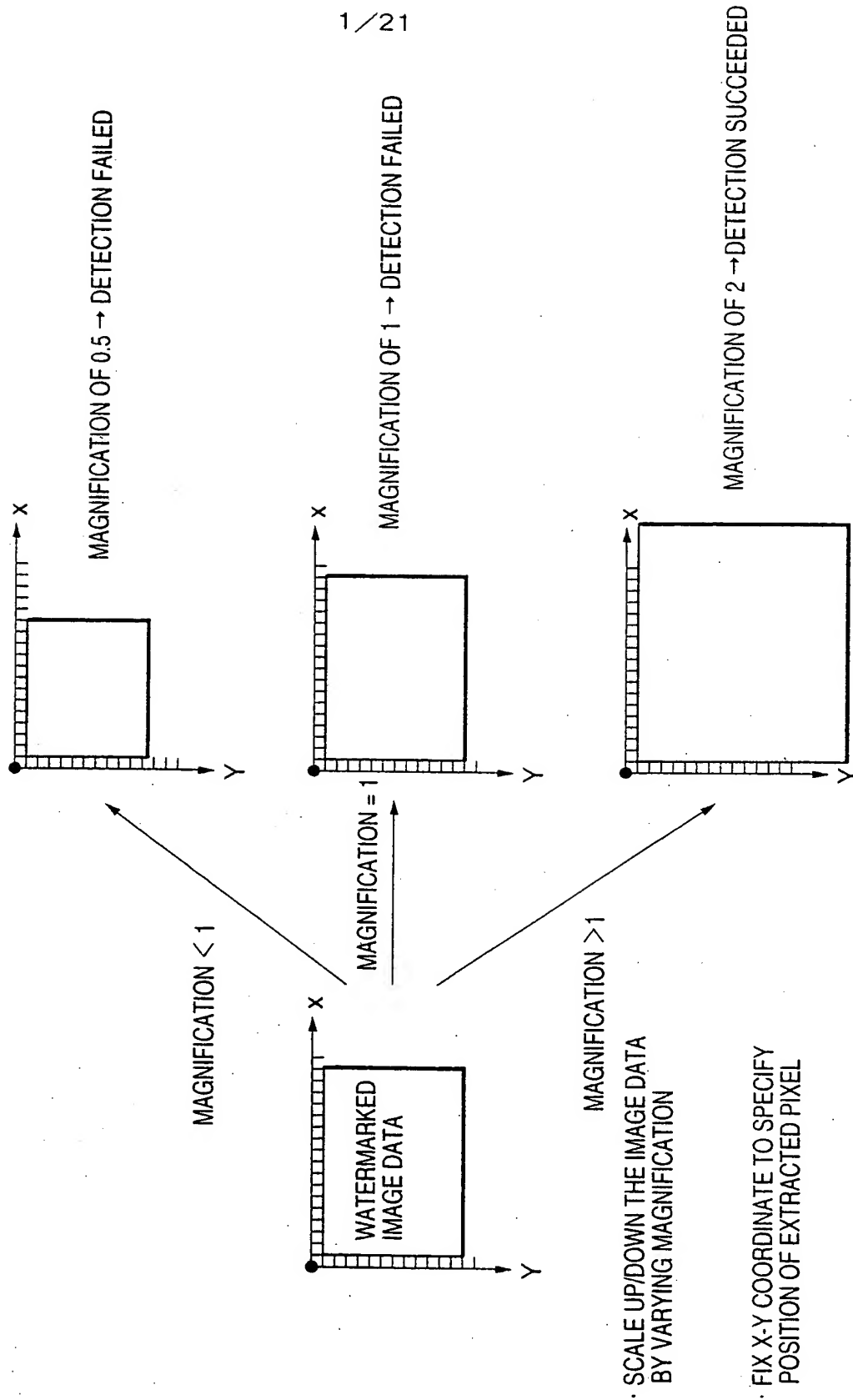


FIG. 2

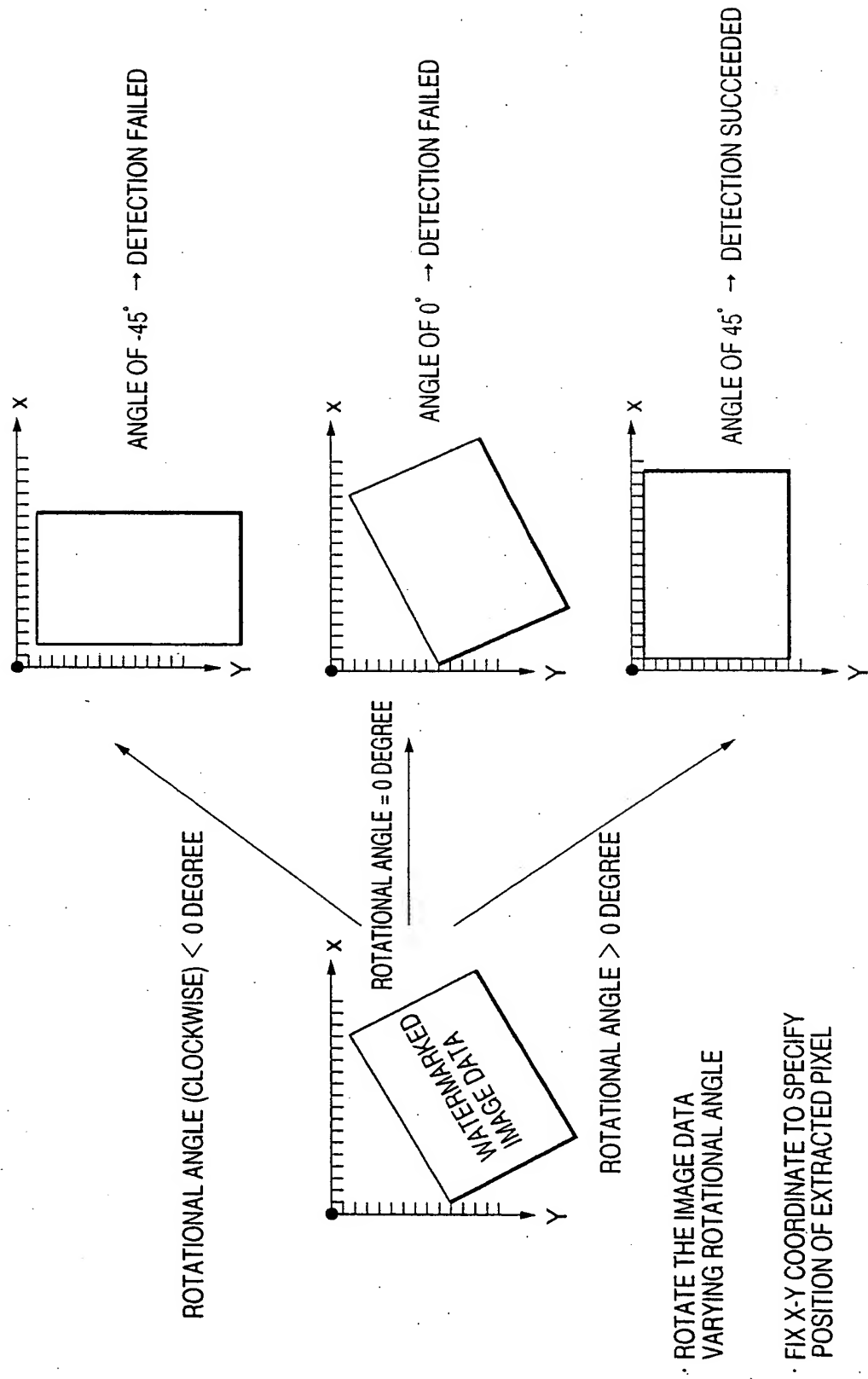


FIG. 3

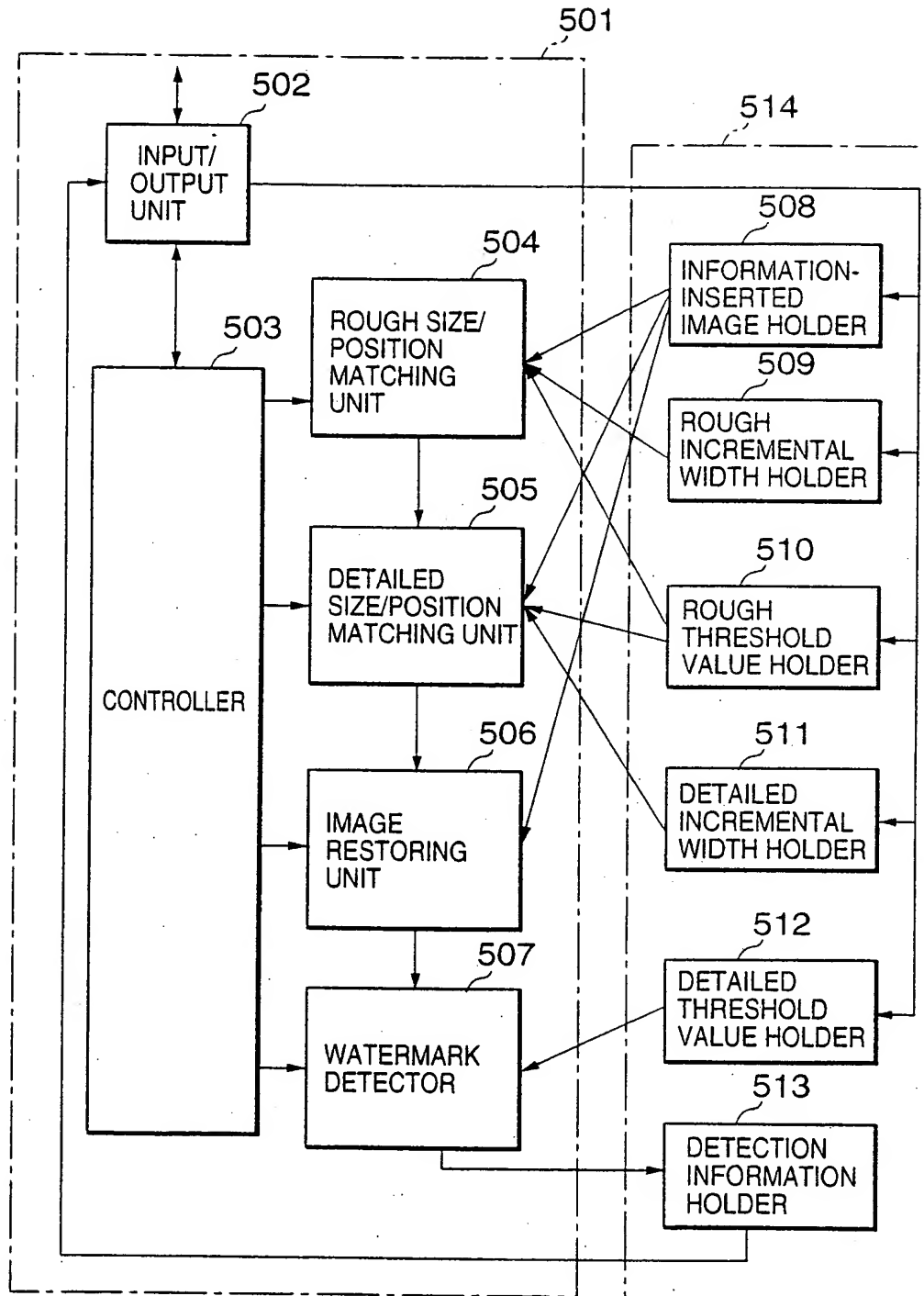


FIG. 4

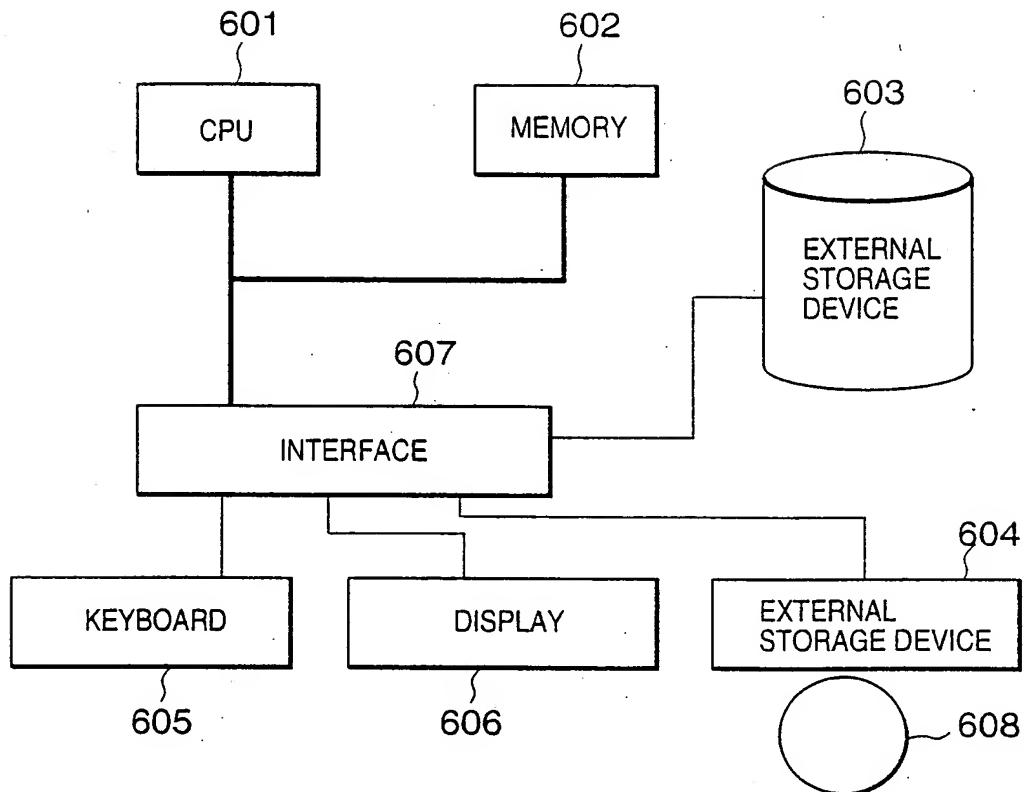


FIG. 5

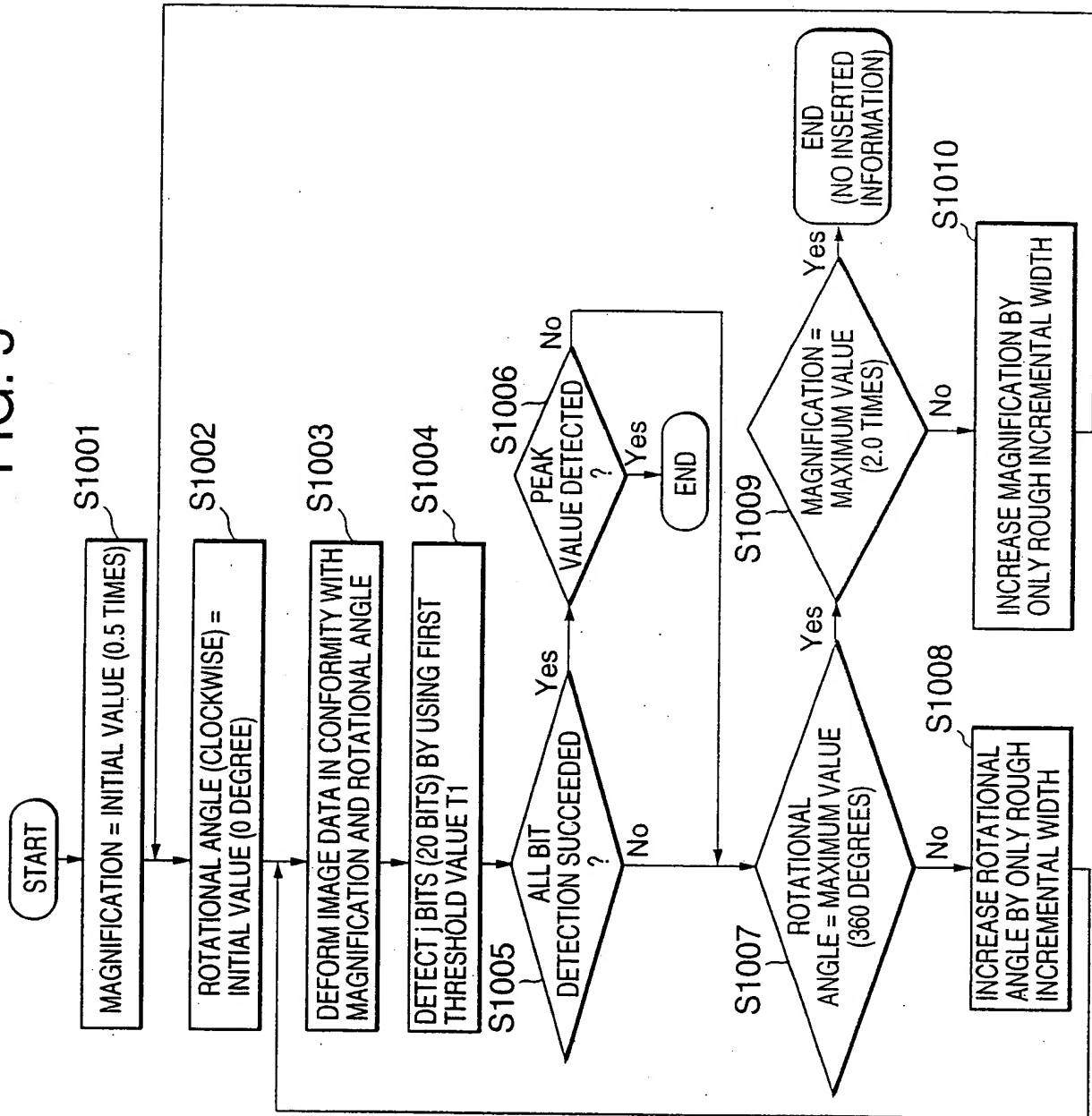


FIG. 6

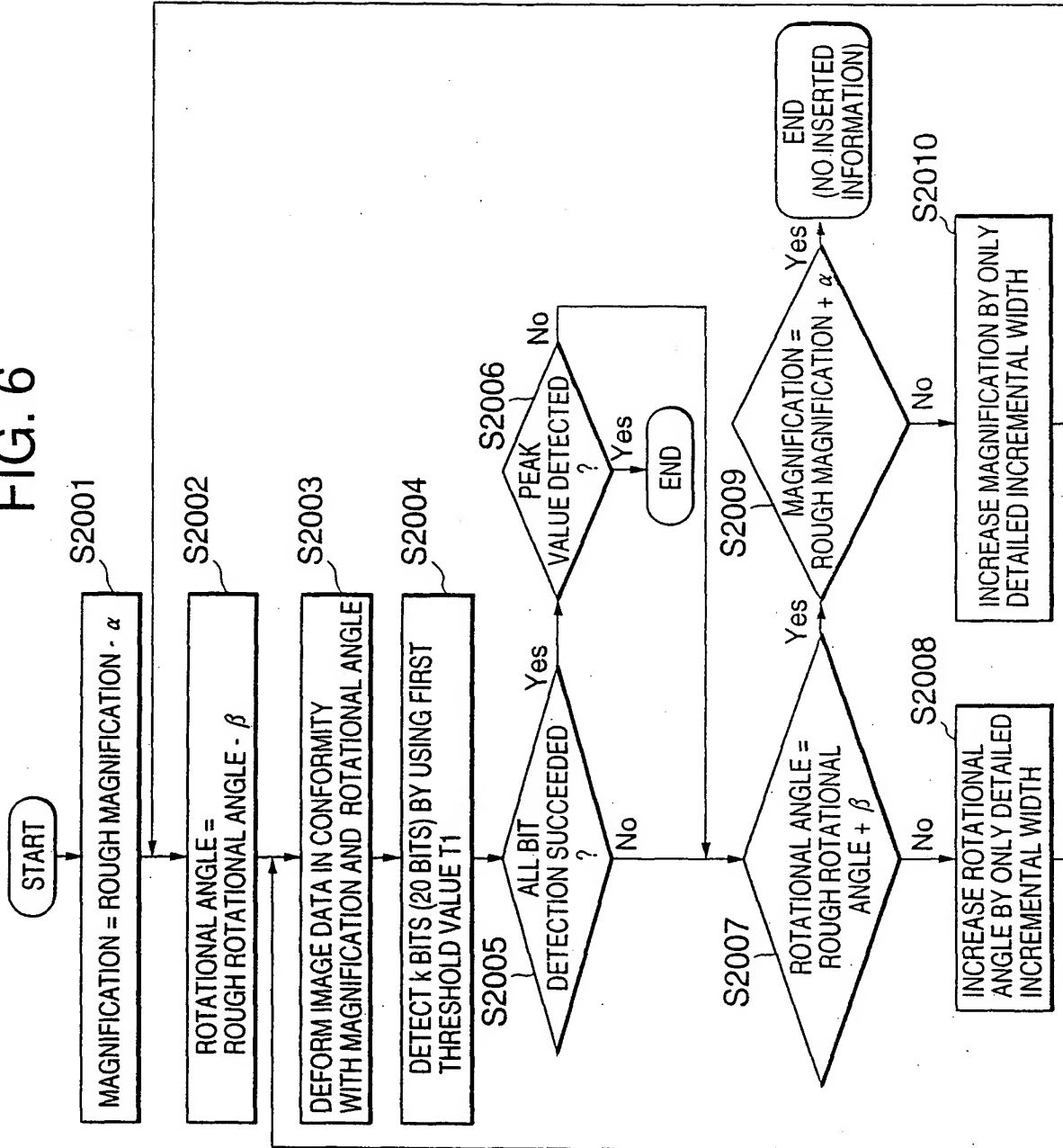


FIG. 7

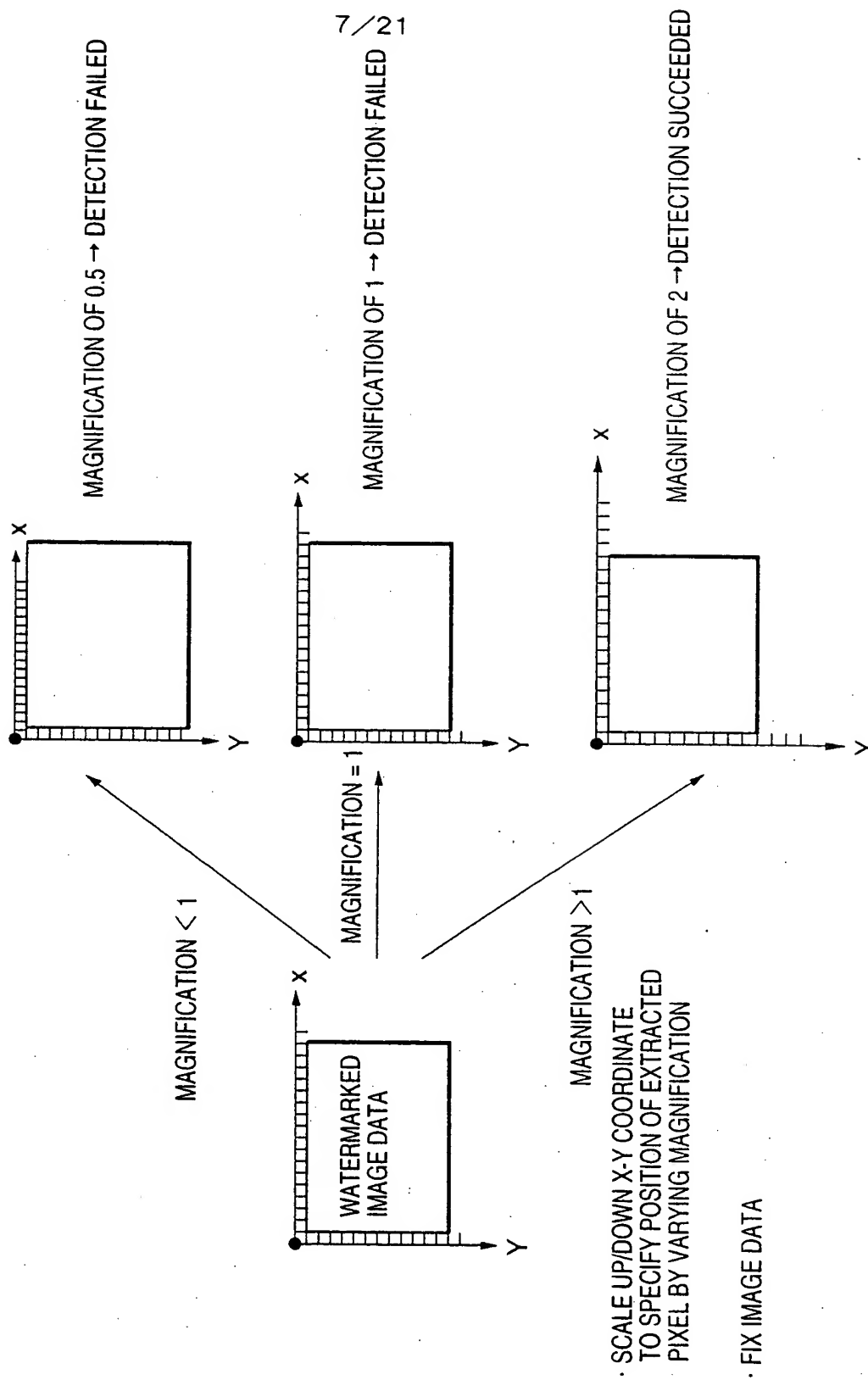


FIG. 8

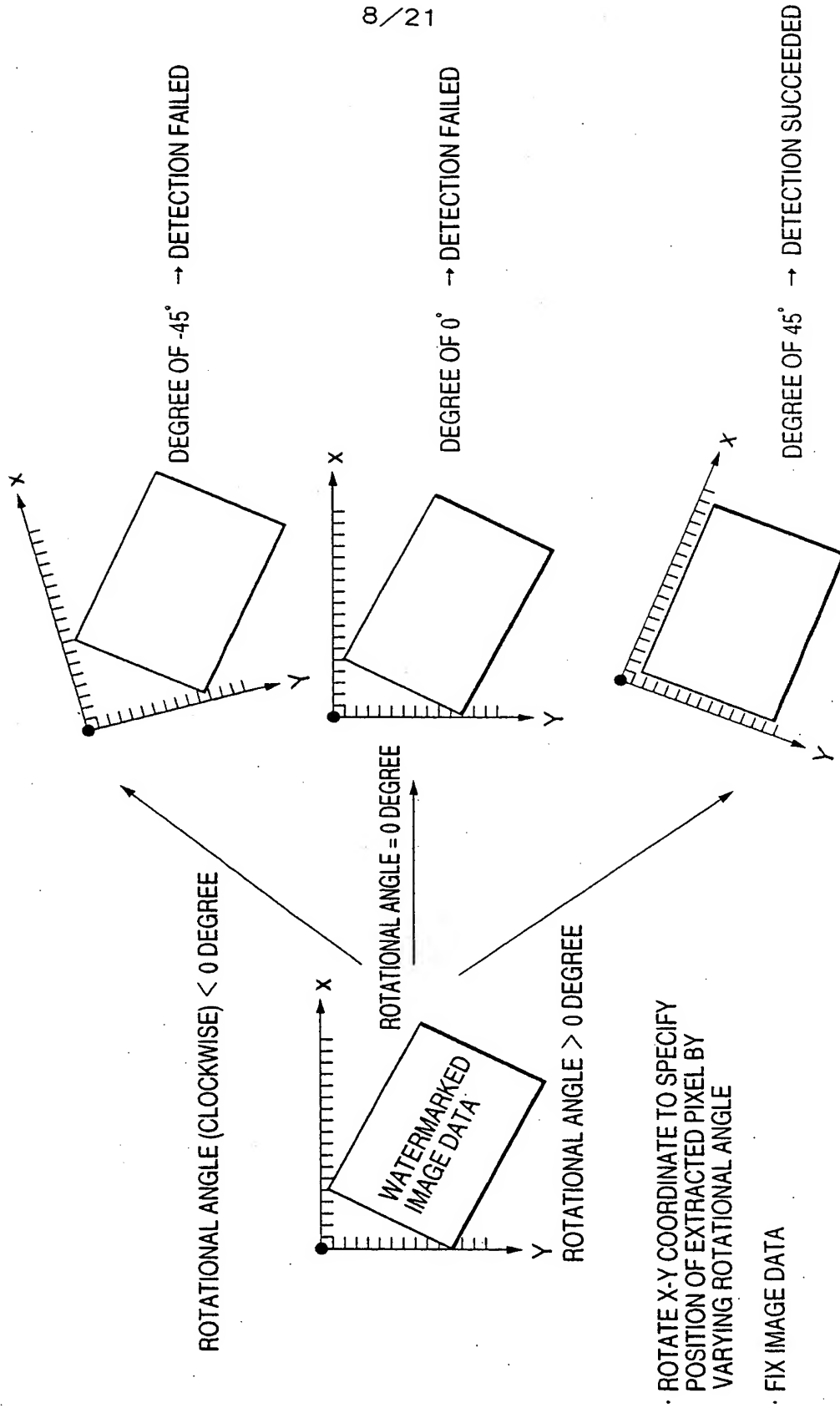




FIG. 9

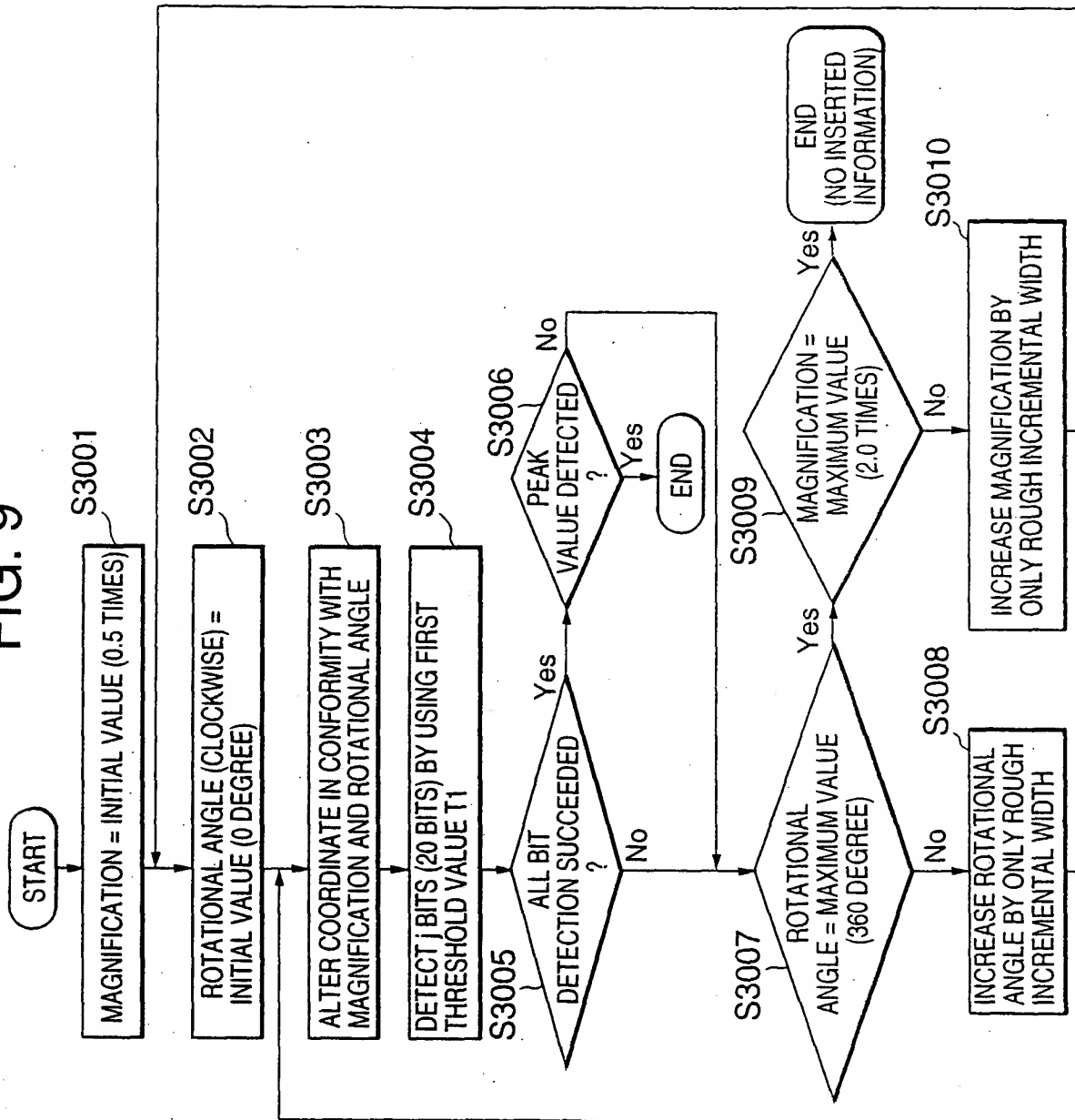


FIG. 10

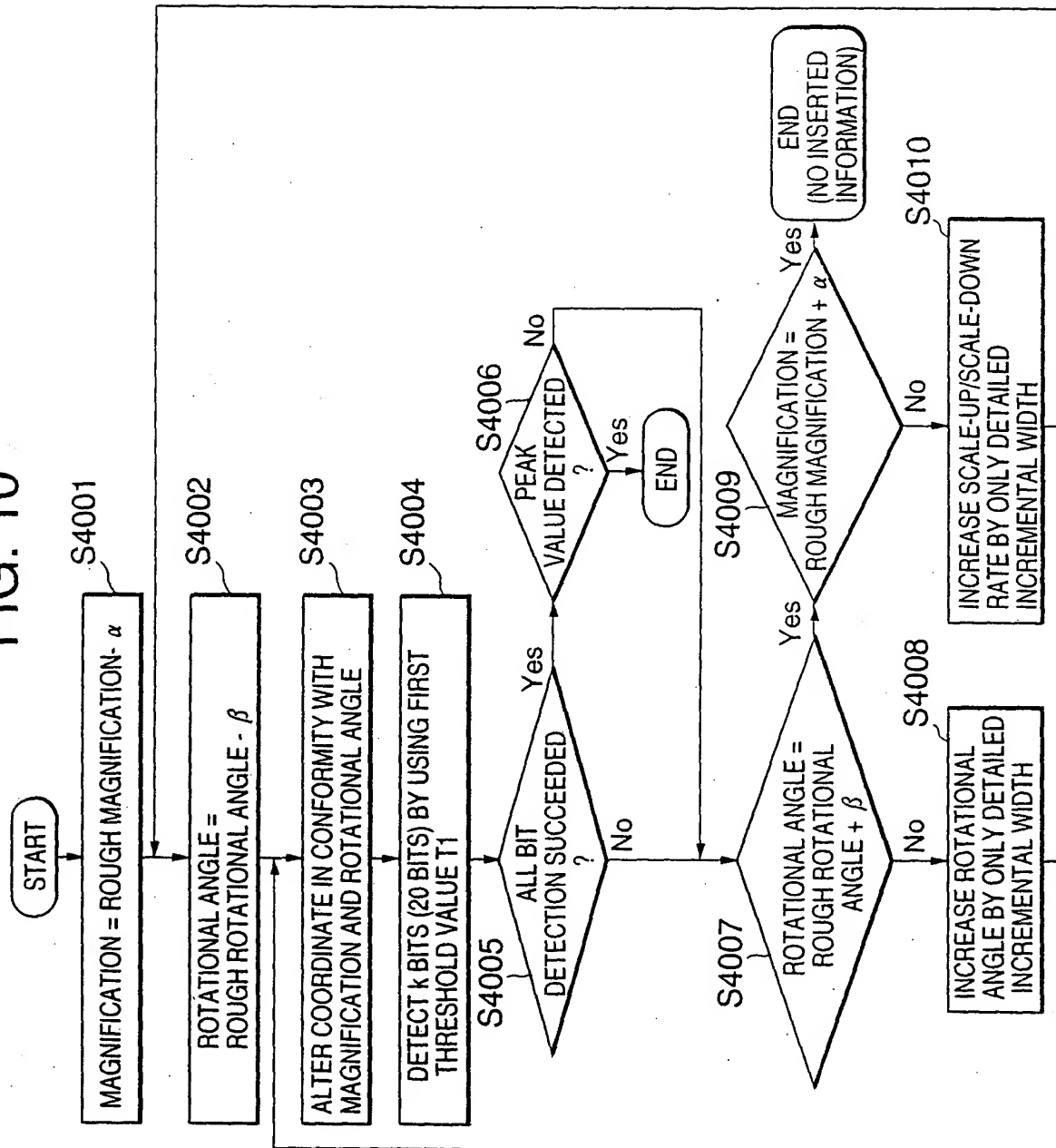


FIG. 11

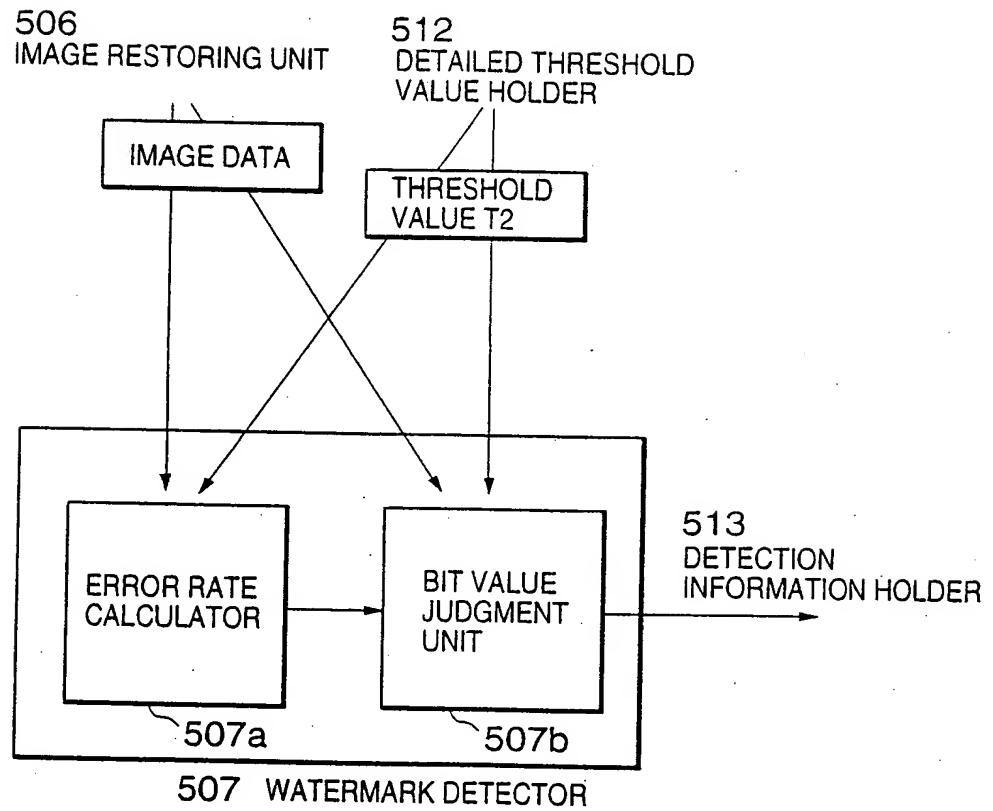


FIG. 12A

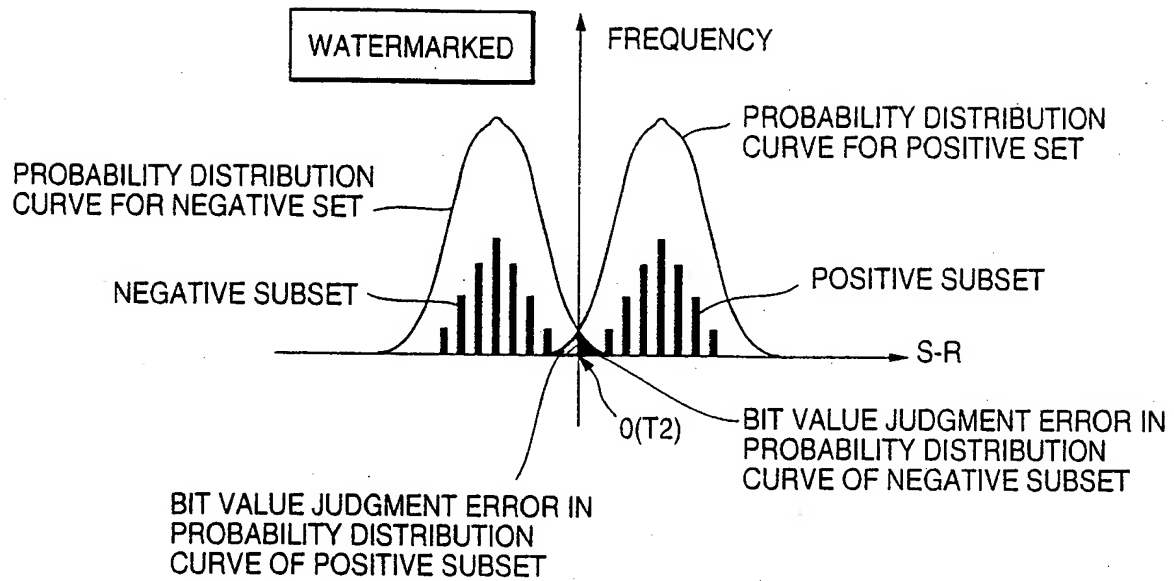


FIG. 12B

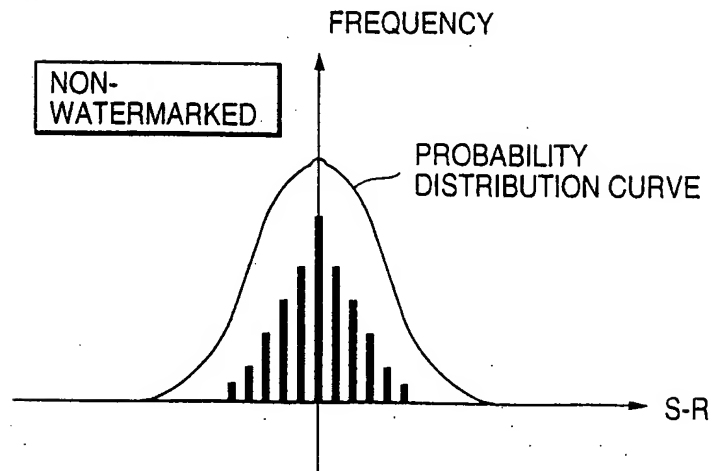


FIG. 13

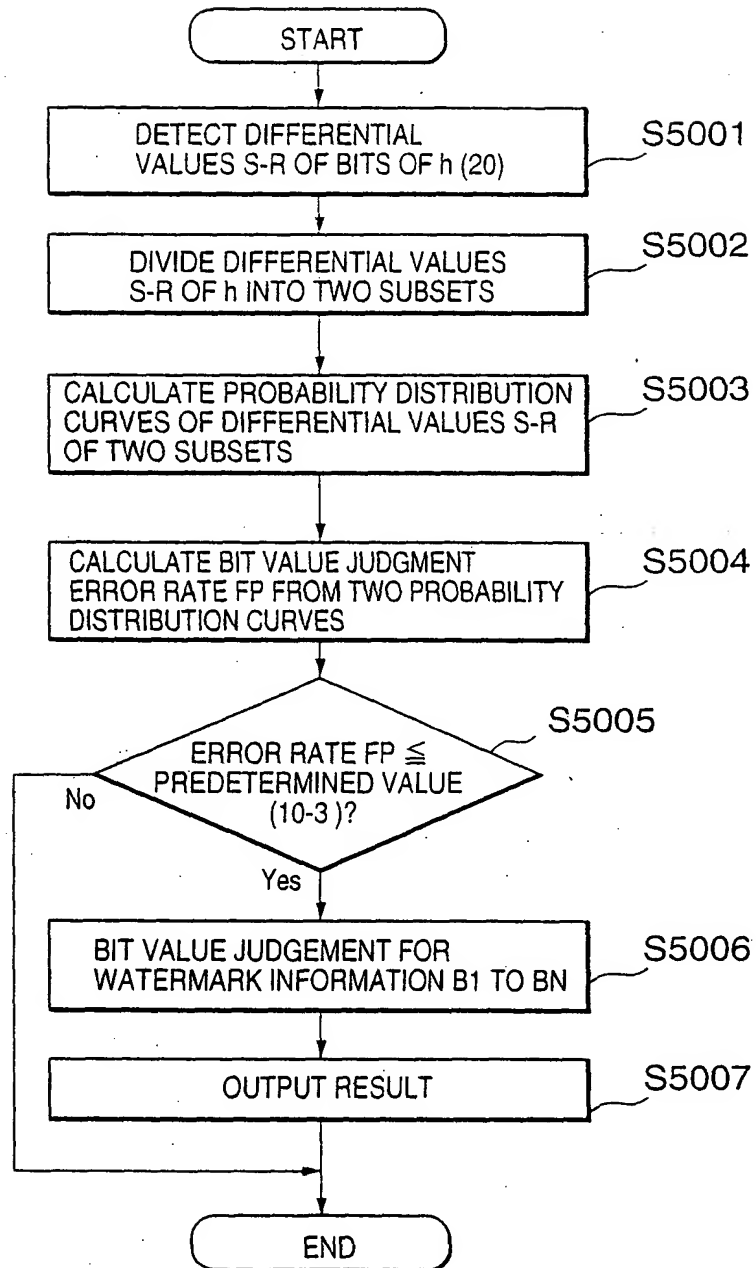


FIG. 14

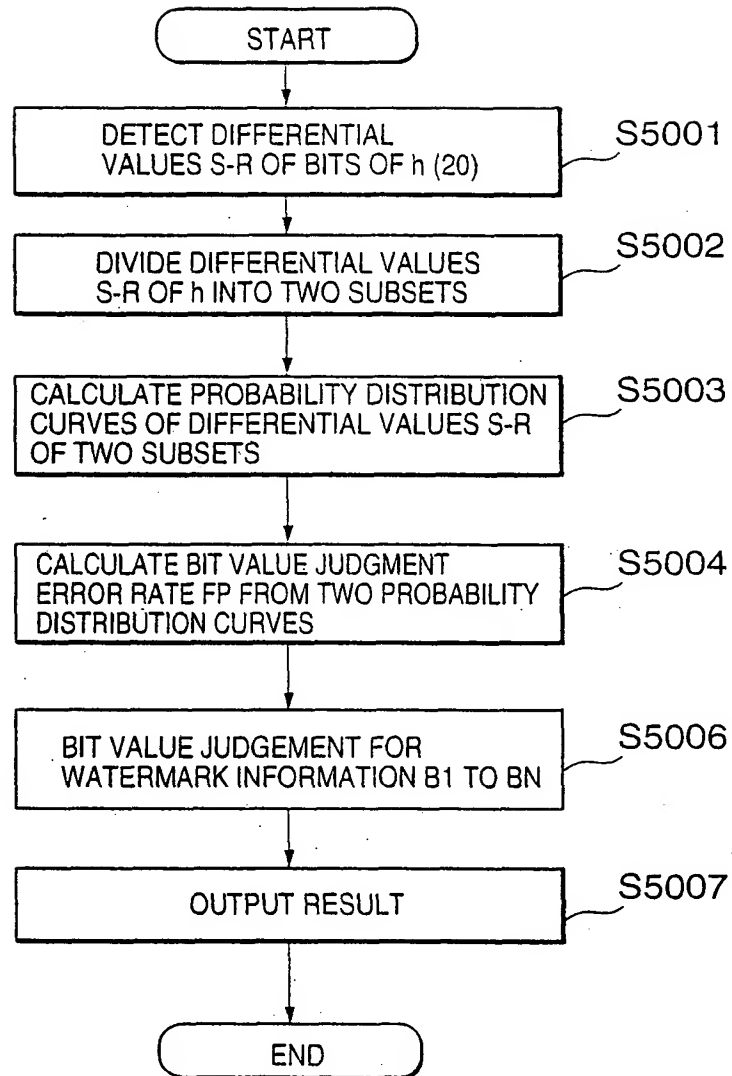


FIG. 15

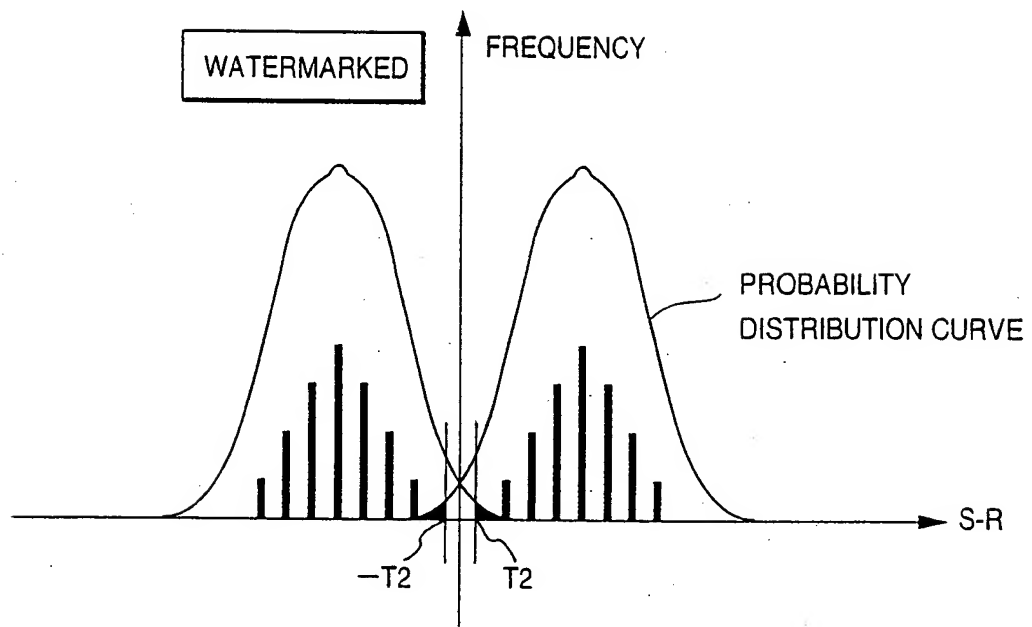


FIG. 16

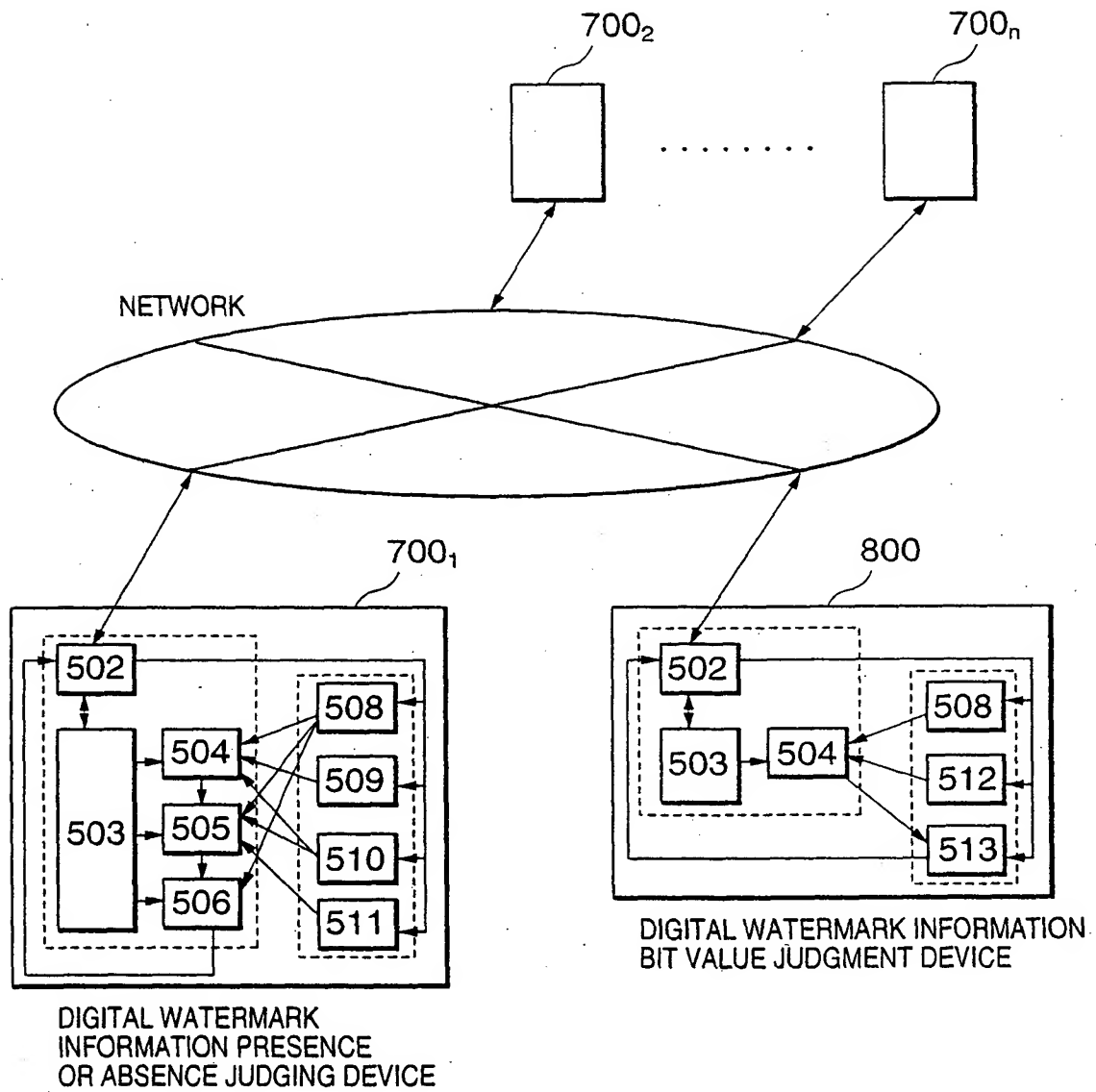




FIG. 17

SHIFT TO Web SERVER 900<sub>1</sub> TO BUILD UP WATERMARK PRESENCE OR ABSENCE JUDGMENT DEVICE 700<sub>1</sub>, AND WHEN THERE IS WATERMARK, BIT VALUE JUDGMENT IS REQUESTED TO BIT VALUE JUDGMENT DEVICE 800. AFTER PROCESSING IS FINISHED, SHIFT TO NEXT Web SERVER.

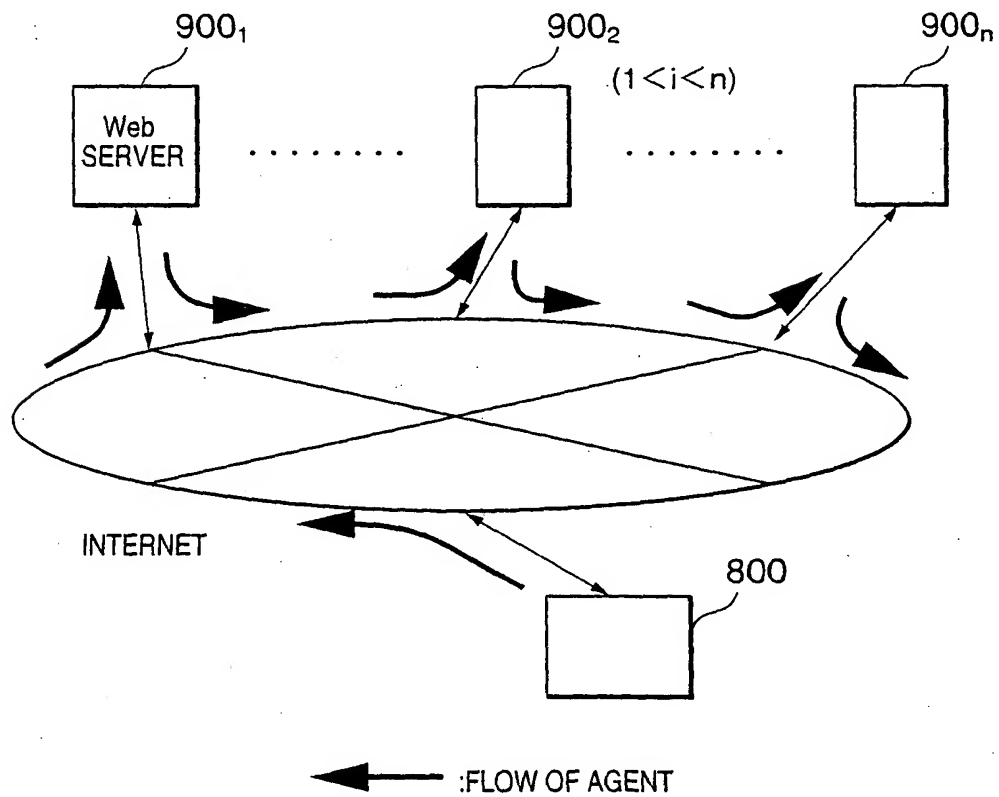
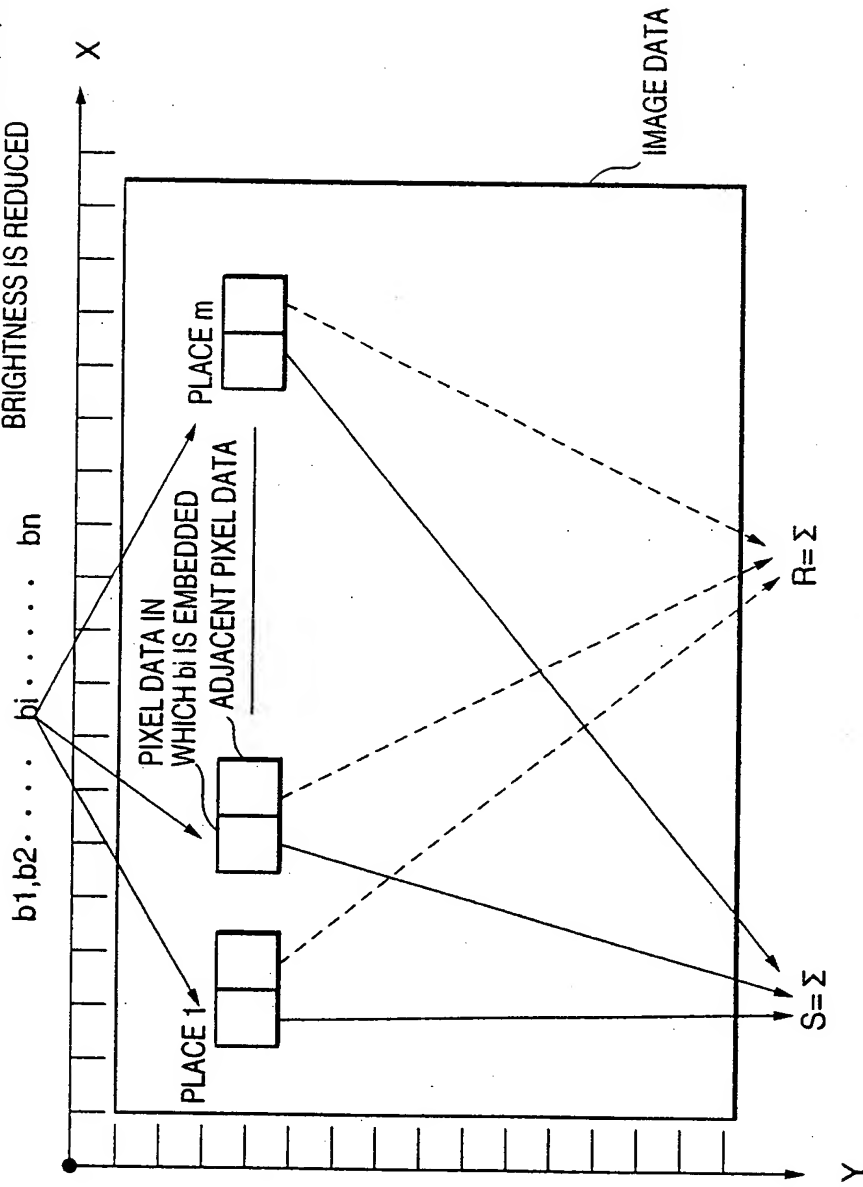


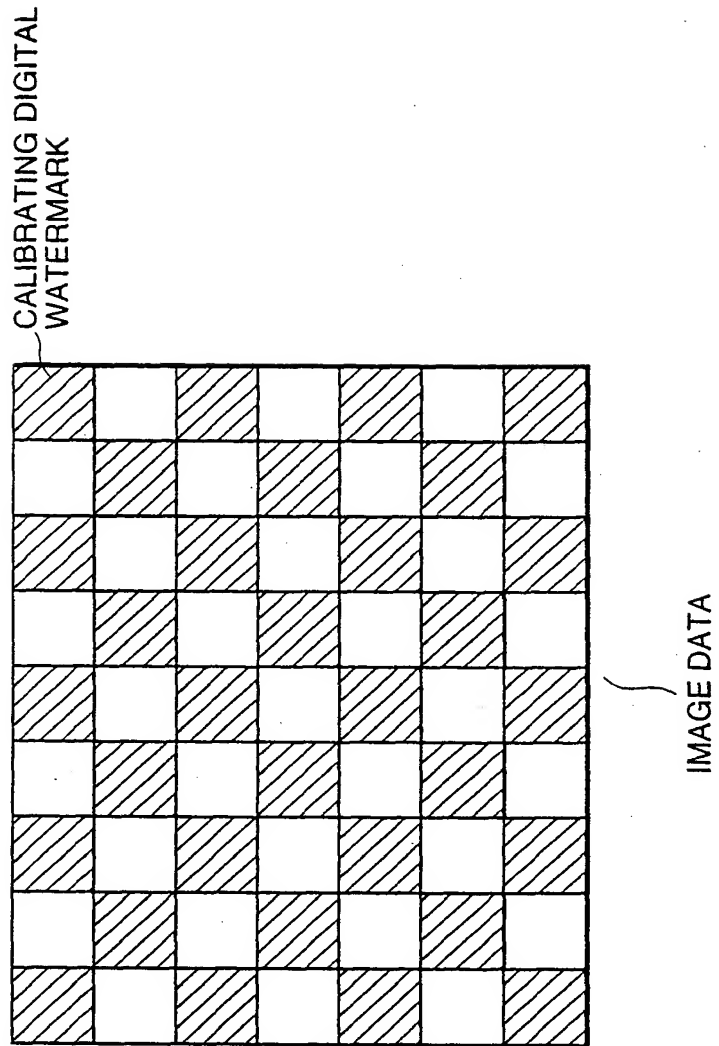
FIG. 18

IF  $b_i = 1$ , BRIGHTNESS INCREASED, AND IF  $b_i = 0$ ,  
BRIGHTNESS IS REDUCED



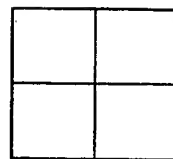
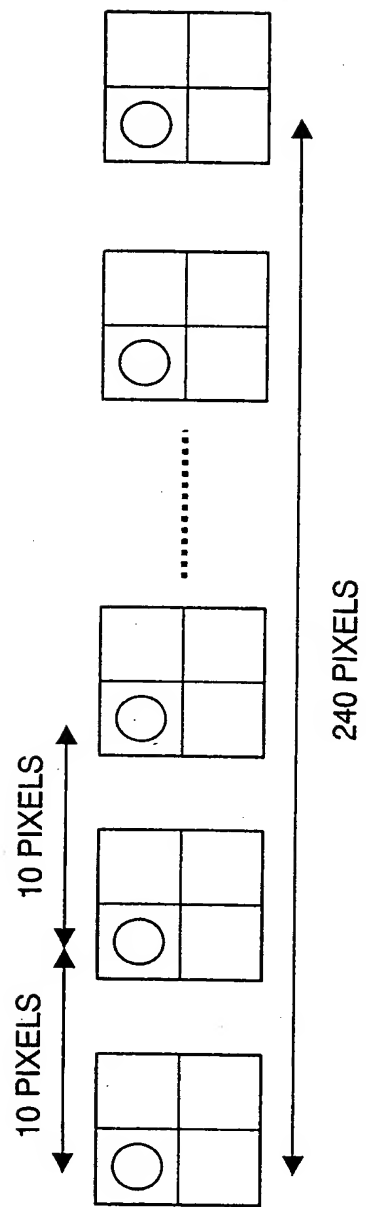
JUDGMENT:  $S - R > T \rightarrow b_i = 1$  (T REPRESENTS POSITIVE THRESHOLD VALUE)  
 $S - R < -T \rightarrow b_i = 0$   
 $-T < S - R < T \rightarrow$  NO WATERMARK EMBEDDED

FIG. 19



# FIG. 20

NO DEVIATION BETWEEN PIXEL DATA ALTERED  
POSITION AND DETECTING POSITION



: PIXEL DATA ALTERED POSITION



: PIXEL DATA DETECTING POSITION

# FIG. 21

